

## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/KR2005/000532

## A. CLASSIFICATION OF SUBJECT MATTER

**IPC7 C12N 15/54**

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7 C12N 15/54,

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean patents and applications for inventions since 1975.

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKIPASS, Delphion, PATROM, PAJ, NCBI PubMed database

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	Frederic M.V. et al., "Carnitine Biosynthesis: Identification of the cDNA Encoding Human gamma-Butyrobetaine Hydroxylase." Biochemical and Biophysical Research Communications, Vol. 250, pp 506-510 (1998). See the whole document.	7
A	Galagan J.E. et al., "The genome sequence of the filamentous fungus Neurospora crassa." Nature Vol. 422(6934), pp. 859-868 (2003). See the whole document	1 - 7
A	Bach A., "Carnitine biosynthesis in mammals" Reprod Nutr Dev. Vol. 22(4), pp583-596 (1982). See the whole document.	1 - 7
A	Sandor A. et al., "An enzymatic method for the determination of butyrobetaine via conversion to carnitine after isolation by high performance liquid chromatography." Clin Chim Acta. Vol. 176(1), pp 17-27 (1988) See the whole document.	1 - 7
A	US 20030037350 A1 (Millennium Pharmaceuticals, Inc.) 20 Febrary 2003 See the whole document	1 - 7

Further documents are listed in the continuation of Box C.

See patent family annex.

\* Special categories of cited documents:

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier application or patent but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family.

Date of the actual completion of the international search

11 JULY 2005 (11.07.2005)

Date of mailing of the international search report

11 JULY 2005 (11.07.2005)

Name and mailing address of the ISA/KR



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920 Dunsan-dong, Seo-gu, Daejeon 302-701,  
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Authorized officer

JEONG Eui Jun

Telephone No.



**INTERNATIONAL SEARCH REPORT**  
Information on patent family members

International application No.  
PCT/KR2005/000532

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 20030037350 A1	20. 02. 2003	WO0164880C2 WO0164880A3 WO0164880A2 WO0132885C2 WO0132885A3 WO0132885A2 WO0123589C2 WO0123589A3 US20030037350A1 US20020076784A1 US6482620 AU0141875A5 AU0113616A5 AU0110719A5	16. 01. 2003 03. 01. 2002 07. 09. 2001 16. 05. 2002 28. 03. 2002 10. 05. 2001 05. 12. 2002 17. 01. 2002 20. 02. 2003 20. 06. 2002 19. 11. 2002 12. 09. 2001 14. 05. 2001 30. 04. 2001

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**Box No. I Nucleotide and/or amino acid sequence(s) (Continuation of item 1.b of the first sheet).**

1. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, the international search was carried out on the basis of:

## a. type of material

- a sequence listing  
 table(s) related to the sequence listing

## b. format of material

- in written format  
 in computer readable form

## c. time of filing/furnishing

- contained in the international application as filed  
 filed together with the international application in computer readable form  
 furnished subsequently to this Authority for the purposes of search

2.  In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

## 3. Additional comments: